Prepared for:
U.S. Agency for International Development
Health Insurance Organization, Egypt

Contract Number:
263-0170-C-00-3042-00

OUTPATIENT MEDICAL RECORDS SYSTEM

FUNCTIONAL DESIGN

USAID Project Number: 263-0170
[Develop a Detailed and Updated Management Information System for the Egyptian Health Insurance Organization, Cost Recovery Program]

Prepared by:
The MAXIMUS, Chemonics, Arabsoft Project Team

Draft Date:
June 9, 1994
For Review and Discussion Only

June 9, 1994

Dr. Mohamed Arafa
Chairman
Health Insurance Organization
Heliopolis
Cairo, Egypt

Dear Dr. Arafa:

MAXIMUS is pleased to submit this draft document for the Outpatient Medical Records System Functional Design. This functional design was developed based on numerous site visits to HIO Headquarters, branch offices, clinics and hospitals, and through consultation with key personnel related to those sites.

The Medical Records System Functional Design outlines a system that will collect and store beneficiary medical data. It will enhance HIO's ability to maintain and access beneficiary medical data, improving efficiency and the quality of service HIO is able to offer. We ask that you review this document 1) to verify that the design reflects what was discussed during site visits and walk-throughs; 2) to validate that, when seen as a whole, the automated process will enhance the effectiveness of each operational area; 3) to confirm that assumptions are valid; and 4) to identify any organizational, policy and procedural changes which may be necessary for the success of the project.

The Medical Records System described in this document includes extensive reporting and analysis capabilities. For this reason, you may wish to have your senior managers review the functional design to ensure that the system meets their needs.

Because further development of this module is so heavily dependent on your input, we would greatly appreciate receiving the response to your review within two or three weeks. We look forward to your comments and suggestions. If you have any questions, please do not hesitate to contact me.

Sincerely,

Thomas E. Knotts
Chief of Party

cc: General Faisal Taie, HIO
Ms. Mellen Tanamly, USAID Project Officer

June 9, 1994

Ms. Mellen Tanamly
Project Officer
USAID - Egypt
106 Kasr El Aini Street, 7th Floor
Cairo, Egypt

Ref: Project Number 263-0170

Dear Ms. Tanamly:

MAXIMUS is pleased to submit this draft document for the Outpatient Medical Records System Functional Design. This functional design was developed based on numerous site visits to HIO Headquarters, branch offices, clinics and hospitals, and through consultation with key personnel related to those sites.

The Medical Records System Functional Design outlines a system that collects and stores beneficiary medical data. This system also provides powerful tools for analysis and reporting. We have asked HIO to review this document 1) to verify that the design reflects what was discussed during site visits and walk-throughs; 2) to validate that, when seen as a whole, the automated process will enhance the effectiveness of each operational area; 3) to confirm that assumptions are valid; and 4) to identify any organizational, policy and procedural changes which may be necessary for the success of the project. We welcome your careful review of the report as well.

We look forward to discussing the design with you and HIO so that we can address any questions and concerns. If you have any questions about this report, please do not hesitate to contact me.

Sincerely,

Thomas E. Knotts
Chief of Party

TABLE OF CONTENTS

Section **Page**

1 INTRODUCTION 1-1
1.1 Purpose of the Document 1-1
1.2 Process Used to Develop Design 1-1
1.3 Intended Audience 1-2

2 GENERAL OVERVIEW OF THE SYSTEM 2-1
2.1 Overview of the HIO MIS 2-1
2.2 The Current Medical Records System 2-5
2.3 Analysis of the Current System 2-8
2.4 Proposed Medical Records System 2-8

3 GENERAL ASSUMPTIONS 3-1
3.1 Assumptions Related to Location, Transfer and Maintenance of Medical Records 3-1
3.2 Assumptions Related to Work Flow 3-1
3.3 Assumptions Related to Hardware Configuration 3-2
3.4 Assumptions Related to Human Resources and Training . . . 3-3

4 FUNCTIONAL DESIGN 4-1
4.1 Clinic Medical Records Subsystem 4-3
4.1.1 Visits Registration 4-3
4.1.2 Process Historical Medical Records 4-8
4.1.3 Process Prosthetic/Optical Devices 4-12
4.1.4 Produce Aggregated Reports 4-12
4.1.5 Linking Visits to Episodes 4-14
4.2 Hospital Medical Records Subsystem 4-21
4.3 Branch Medical Records Subsystem 4-21

APPENDICES

APPENDIX A: DATA FLOW DIAGRAMS A-1
APPENDIX B: FUNCTIONAL DECOMPOSITIONS B-1
APPENDIX C: LOGICAL DATA STRUCTURES C-1
APPENDIX D: BLOCK DIAGRAM D-1
APPENDIX E: SUPPLEMENTARY INFORMATION E-1
APPENDIX F: REFERENCES F-1

LIST OF EXHIBITS

Exhibit	Title	Page
2-1	Draft Logical Framework (Overall Project)	2-2
2-2	Draft Logical Framework (Medical Records)	2-4
2-3	Flow of Data Among Phase I Applications	2-5
4-1	Beneficiary Visit Form	4-5
4-2	Medical Record Report	4-6
4-3	GP/Specialist Daily Activity Report	4-9
4-4	Beneficiary Medical History Questionnaire	4-10
4-5	GP Activity Report	4-13
4-6	Beneficiary Sick Leave Report	4-15
4-7	Specialist Activity Report	4-16
4-8	Laboratory Activity Report	4-17
4-9	X-Ray Activity Report	4-18
4-10	Physiotherapy Activity Report	4-19
4-11	Dispensed Prosthetic Device Report	4-20

1 INTRODUCTION

This document presents the functional design for the Medical Records System. The Medical Records System will be installed and used in the Cairo and Northwest Delta Branches. Medical Records is a first phase module of the automated Management Information System being developed for use by the Egyptian Health Insurance Organization (HIO). This system is being developed in conjunction with the HIO and the U.S. Agency for International Development (USAID).

1.1 Purpose of the Document

This functional design document is intended to serve essentially the same function as a blueprint for a building; to provide a design for technicians to follow in creating the project, and to provide a document for review and change before the design is put into place.

At a high level, this document describes the following:

- who, organizationally, are the users who directly interact with the system;
- what functions the system provides to those users;
- what organizational, policy and procedural changes must be implemented along with the system for it to be effective; and
- any assumptions upon which the design is based.

This document intends to serve as a baseline for review and comment. It documents discussions held to date, and information gathered during site visits. It lays out a design that, given the information known, appears useful and realistic.

1.2 Process Used to Develop Design

The design portrayed in this document was created after much input from the HIO. A system design cannot be created without an understanding of the existing operational processes. To understand these, the Medical Records Team conducted numerous visits to HIO facilities across the branches. Visits were made to clinics, hospitals, branch offices, and medical services departments. Appendix E is a summary of site visits.

Before beginning the design, it was important that we understand current operations, and the range of procedures that are followed throughout the HIO. By talking with the people who currently perform or manage the performance of the manual medical records processes, we created a picture of the existing system. An overview of the existing process is given in Section 2 of this document.

1.3 Intended Audience

This document represents a high level, but technical, specification of the discussions held thus far with the HIO. There should be nothing in this document that is a surprise to those who participated in the design process. It is merely a structured method of recording the design discussed and documenting the alternatives selected.

It is expected that the audience of this document is the managers of the organizational areas affected by the design, as well as HIO senior management. This document should be reviewed:

- to verify that it represents what was discussed during the walkthroughs;
- to validate that, when seen as a whole, the automated process described will enhance the functioning of each operational area;
- to agree that the assumptions used are valid; and
- to commit to the organizational, policy, and procedural changes outlined as necessary for success.

In addition, senior managers should review this document to ensure that the information collected by the system will assist in making more accurate management decisions.

2 GENERAL OVERVIEW OF THE SYSTEM

The development of the Management Information System (MIS) for use by the Health Insurance Organization is a large undertaking, of which Medical Records is one piece. Exhibit 2-1 is a logframe illustrating overall project activities. Exhibit 2-2 is a logframe illustrating activities related specifically to the Medical Records Module.

This section provides a high level overview of the modules to be included in the HIO MIS, and the interaction between these modules. This section also includes a description of the existing operational processes associated with medical records. After a review of the current practices, the proposed process is described. This section presents a high level view only. A technical functional design description is provided in Section 4.

2.1 Overview of the HIO MIS

The HIO MIS system is being developed in phases. During the first phase, software applicable to clinics and branches is being developed. In the next phase, inpatient hospital software will be developed. The modules in this first phase are:

- beneficiary registration,
- drug control,
- cost accounting, and
- medical history/visit tracking.

None of these modules stands alone. Each contributes information to the database, and uses information provided by other modules. The purpose of all modules, in addition to supporting operational areas, is to collect and provide, to management, detailed information about the HIO. With this improved level of information, HIO management can make well-informed and timely decisions regarding cost containment and service provision; a decision making capacity that is essential as the organization continues to grow and evolve.

All applications for a branch or clinic reside on the machine at that facility. Therefore, within a facility all applications have access to the database on that facility's machine. For example, visit information already entered through beneficiary registration does not need to be reentered for medical records. In addition, data can be shared between facilities.

This data sharing is transparent to the user. The applications are designed to share data, and the user does not need to do anything to have this happen. On the other hand, the fact that data is shared between applications does not mean that the database is open to all. Operational areas that have no need to view certain data are not given the opportunity to do so.

Exhibit 2-1 (page 1 of 2)
DRAFT LOGICAL FRAMEWORK
OVERALL PROJECT

PROJECT NARRATIVE	VERIFIABLE INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
Project Goal Improve HIO ability to raise treatment quality and contain costs.	**End of Project Status** Lower costs for drugs per patient. Shorter lengths of stay in hospitals. Reduced number of patient visits per episode of illness. Lower cost of treatment per patient. Higher proportion of favorable outcomes per patient.	Statistical data from HIO. Statistical data from MIS.	HIO supports a MIS. HIO involved in MIS design. HIO provides resources. HIO adopts policies & procedures to maximize use of system.
Project Purpose Build & implement a MIS throughout the HIO.	**Measures of Achievement** Number of HIO sites automated & using MIS. Number of S/W application modules running.	Site visits. End of Project Status Evaluation.	HIO managers involved in system implementation.

Outputs MIS systems in use in facilities. System generated reports. Trained HIO staff.	**Magnitude of Outputs** 200+ systems installed in Egypt. Electronic & hardcopy reports for every HIO function. 2000+ staff trained.	Site visits. Project reports. End of Project Status Evaluation.	Staff available for training. Enough qualified staff found for each job. HIO purchase needed equipment. HIO obtain telecom. lines.

Exhibit 2-1 (page 2 of 2)
DRAFT LOGICAL FRAMEWORK
OVERALL PROJECT

PROJECT NARRATIVE	VERIFIABLE INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS

Inputs USAID Funding - Training - Technical Assistance - Commodities HIO Project Resources - Vehicles - Office Space - Furniture - Electronic Power - Telecom Lines HIO Reg. Resources - Facilities - Clinical - Administrative	**Magnitude of Inputs** $21M+ 8 Project vehicles Al Ahram Building Furnish each clinic computer room. 250 KV Transformer. 8 Computer centers. Medical practice committee. Drug formulary committee. Management analysis office. Computer supplies budget. Telecom cost budget. Hardware maintenance budget.	Financial Records. Status reports. End of project evaluation. Site visits.	MIS remains a priority of the HIO. Resource support from HIO continues.

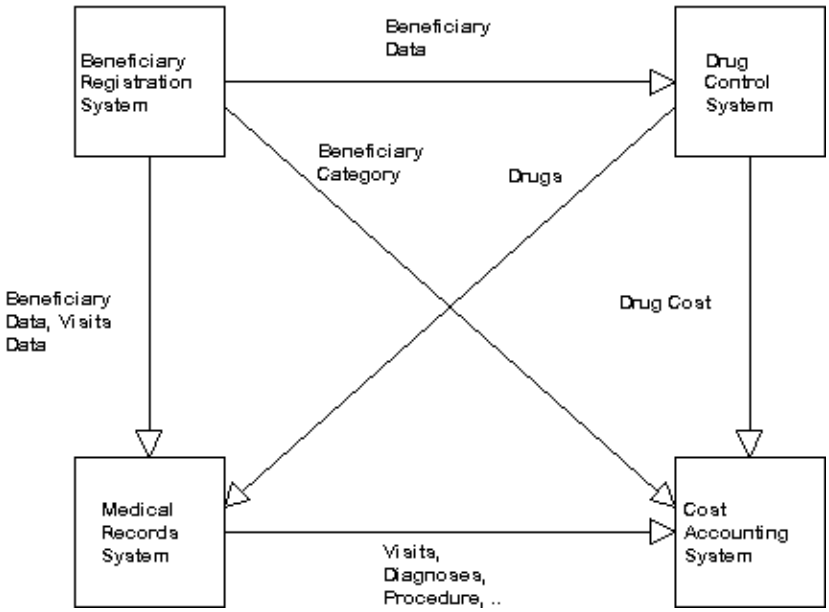
Exhibit 2-2
DRAFT LOGICAL FRAMEWORK
MEDICAL RECORDS MODULE

PROJECT NARRATIVE	VERIFIABLE INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
Module Goal Improve HIO ability to manage medical records, thereby improving the quality of service given.	**End of Project Status** Better service per patient. Provide more accurate information for the different HIO levels.	Medical Record Reports.	HIO uses module data. HIO adopts policies & procedures to maximize use of system.
Module Purpose Automate the medical records process.	**Measures of Achievement** Number of HIO sites using Medical Records Module.	Site visits. End of Project Status Evaluation.	HIO managers involved in system implementation.
Outputs Medical Records Module in use in facilities. System generated reports. Trained HIO staff.	**Magnitude of Outputs** 150+ systems installed in Egypt. Electronic & hardcopy reports for medical records functions.	Site visits. Project reports. End of Project Status Evaluation.	Staff available for training. Enough qualified staff found for each job.

Inputs HIO decision-making resources.	**Magnitude of Inputs** Medical Records Committee.	Status Reports. End of Project Status Evaluation. Site Visits.	Resource support from HIO continues.

Exhibit 2-3 depicts data being shared among applications. For an operational overview of the interrelationship between the Beneficiary Registration, Drug Control, Cost Accounting, and Medical History Modules, actual scenarios of daily activities have been developed. These scenarios are available in printed form for review.

Exhibit 2-3
FLOW OF DATA AMONG PHASE I APPLICATIONS



2.2 The Current Medical Records System

Work flow for the current manual system is the same in most of the HIO branches. There are some differences in methods of implementation.

The work flow in a clinic is as follows:

- The beneficiary usually holds either an ID card or a medical booklet, or both. Some branches, like Cairo, keep a medical file for each beneficiary in the clinic archive, and no medical booklet is kept by the beneficiary. The drawback of this method is that the beneficiary may have more than one file in the clinic due to the misplacing of the files on the shelves.

  For employers who have an on-site GP clinic, a medical file is kept in the GP clinic and another file is kept in the assigned polyclinic.

- When a beneficiary enters a clinic, his eligibility is checked in the registration office, then the visit is registered in the clinic registration book (Form 121). Form 121 includes the beneficiary ID number, beneficiary name, employer name, date, and medical specialty required.

If the medical record is in the clinic, the beneficiary file is retrieved using the beneficiary's ID number. In all cases the medical file or booklet is stamped either as a GP visit or as a specialist visit.

Some clinics have one registration office for registering both the GP visits and the specialist visits, while others have one registration office for each.

- Right before the patient is examined, the nurse fills in the data in Form 123 which includes the beneficiary ID number, date, visit purpose, employer, sex, and age. The diagnoses and the sick leave days are filled in by the physician after the patient's examination. The physician updates the medical file or booklet by writing the diagnoses, recommendations, and any requested tests.

- If the patient is asked to do any procedure such as a lab test or X-ray, the physician writes a referral which the beneficiary takes to the specialized center. The procedure center visits are recorded in a daily register as follows:

  . Register 154 in the case of a lab test,

  . Register 158 in the case of radiology, and

  . Register 131 in the case of physiotherapy.

- In the case of lab or physiotherapy work, the beneficiary simply carries the results back to the referring physician.

- The X-ray results are sent to the physician who requested them, so the patient will find them with the physician in the next visit. The physician registers the test result reference number in the beneficiary's medical booklet. After the physician is finished with the X-ray results, the results are taken back to the radiology center and stored in chronological order. In some cases, the beneficiary is allowed to check out the X-ray results by leaving his/her ID card. The X-ray results must be returned to the radiology center, however.

- The reference number and the visit date registered in the beneficiary medical booklet are used if any of the old X-ray results is needed.

- The beneficiary may do a requested test at any time, but the visit is not registered either when the test is done or when the results are received.

- The Physician Consultant Committee meets to discuss beneficiary cases that who have more than one diagnosis. This is done to prevent prescription of the same drug by different specialists (e.g. vitamins), and to avoid the risk of drug interactions.

- Home visits are registered on Form 123b and then physicians are assigned to these visits. The results, data on the visit, date, time and physician, are registered in the same register after the visit is done.

- In the prosthetic and optical centers, the beneficiary submits the stamped medical booklet to the front desk to make an appointment. A beneficiary's eligibility for prosthetic or optical services is checked using a card system. When eligibility is verified, the beneficiary is examined by the center's physician who writes a report and a purchase order. The beneficiary is allowed to choose from a list of authorized vendors to order his request. The vendor delivers the request to the clinic where the beneficiary receives it under the supervision of the center's physician.

  Beneficiary and dispensed prosthetic or optic data is registered on Form 109. For every beneficiary there is a card used to facilitate the eligibility check and to register the dispensed item. The cards are sorted according to birth date as a first key, and the beneficiary's name as a second key.

  The center (prosthetic or optical) sends a monthly report of the dispensed items to the medical zone.

- Forms 123 and 123b are sent every 10 days to the clinic statistical department, which produces aggregated reports.

- The clinic statistical department sends a monthly aggregated report to the medical zone presenting the different clinic department activities. This report includes the following information:

  . the GP activity (Form 911), derived from Forms 123 and 123b;

  . the specialist activity (Form 932), derived from Forms 123 and 123b;

  . the sick days given (Form 912), derived from Forms 123 and 123b;

  . the lab activity (Form 934), derived from Form 154;

  . the radiology activity (Form 936), derived from Form 158; and

  . the physiotherapy activity (Form 937), derived from Form 131.

- The medical zone receives the monthly aggregated reports and sends them to the branch statistical department which produces different kinds of statistical reports. These reports are sent to the statistical department at HIO Headquarters, and to the branch manager. These reports include:

. GP activities;

. specialist activities;

. lab tests activities by clinic, and by categories;

. radiology test activities by clinic and by categories;

. dispensed prosthetics; and

. dispensed eyeglasses at the clinic level.

2.3 Analysis of the Current System

This section provides an overview of the current manual system. The manual system includes medical visit registration, historical medical records, treatment procedures registration, and dispensed prosthetics. It also includes a description of the different kinds of aggregated, statistical, and analytical reports that are produced by the clinic statistical department, medical zone statistical department, and the branch statistical department.

In some of the clinics, the only source of a beneficiary's medical history is the medical booklet which is kept by the beneficiary himself. Should a beneficiary in one of these clinics lose the medical booklet, there is no way to restore his previous medical history.

An enormous effort is made to check beneficiary eligibility before dispensing any prosthetics. Clerks spend a great amount of time searching registers and files in order to verify eligibility. This time-consuming process may put some limits on the number of beneficiaries served per day.

Reporting capabilities under the current manual system involve a very tedious and time-consuming procedure. Furthermore, the consistency and accuracy of these reports is quite low.

It is very difficult to keep track of any specific disease or diagnosis on the clinic level, and there is no direct way to link visits to procedures required, or to drugs dispensed in a certain specialty.

2.4 Proposed Medical Records System

The proposed Medical Records System is designed around the current system, and will provide all the reports and information the current manual system provides. The proposed system goes beyond the current system, however, and provides a number of new features. The proposed system will achieve the following:

o The system will be capable of collecting, storing and producing an individual patient's medical history file. This capability will eliminate the problems of

lost medical records and the creation of duplicate files, and will make it easier for the physician to review the medical history for each patient seen. This will increase quality.

- The system will be capable of capturing basic data related to beneficiary visits, procedures and diagnoses, which will help in producing a detailed medical history for each beneficiary. This will help also in automating the daily activity reports (123) and the clinic aggregated reports.

- The system will be capable of collecting, storing, and reporting physician and procedure center activities. This will include laboratory, physical therapy, and radiology activities. This will help in automating the clinic statistical reports.

- All clinic aggregated and statistical reports will be sent to the branch on a monthly basis in order to produce the branch consolidated reports.

- The system will provide information on utilization of clinic services by beneficiary and diagnostic categories. It will identify and document high users and abusers of clinic services. It will provide summary reports for planning and management purposes.

- Comprehensive outcomes analysis of the large database of patient information will highlight any trends or aberrations. This information will be useful in planning and medical research.

3 GENERAL ASSUMPTIONS

This section contains the assumptions that are required for the system to work successfully and efficiently. It is important for the reviewers of this document to read this section carefully. If there are any assumptions made that appear unfeasible, it must be noted at this stage. All future iterations of the design are predicted on these assumptions being a reality.

3.1 Assumptions Related to Location and Transfer of Medical Records

- Medical records should be kept in the primary assigned clinic only. Any query about medical records from another clinic should go through the network. Any update to medical records from one facility to another should be done either through the network of the automated clinics, or manually for non-automated clinics and contracted facilities. In case of temporary assignment to another clinic, a criterion has to be developed for moving the patient's medical records from the primary clinic to the assigned clinic.

  Detailed medical records are kept only for those beneficiaries whose primary assignments are in HIO-owned clinics.

3.2 Assumptions Related to Work Flow

- When the beneficiary comes for a first visit to the assigned clinic, he will be interviewed by a physician in order to complete a medical history form. This information will be used in creating the major procedures and diagnoses files.

  This form might also be completed during the initial medical checkup performed on new hires in order to capture the previous medical history of the beneficiary.

- Any visit to the polyclinic is registered at the reception office. The visit purpose, date, medical specialty needed, and the beneficiary ID number will be also registered.

- It is proposed that the medical records be kept for two years. Major diagnoses and procedures are to be kept through the lifetime of the beneficiary. The HIO Medical Services Departments should prepare a list of these major diagnoses and procedures.

- We recommend canceling the manual Form 123 since the GP/specialist Form 123 will be generated daily by the automated system.

- Any visit to the radiology or lab will not be registered as a visit in the reception office.

- The beneficiary is allowed to receive the lab test result reports without registering a visit in the registration office.

- The X-ray results are sent to the physicians who requested them. At the end of the day, the results are sent back to the radiology center for archiving.

- The procedures performed in any of the procedure centers will be entered at the end of the day by an operator in the computer room.

- The result of the consultant visit will be entered during the specialist visit for the purpose of issuing the consultant's recommended prescription.

- Information about cases treated by a specialist or a consultant working out of a private, contracted facility will be entered into the system at the end of the month at the patient's assigned polyclinic. A detailed form for the medical records should be designed for use by the contracted physicians to facilitate data entry. Physicians should be required to correctly complete this form as a requirement for reimbursement.

- Dental cases will be registered as a visit only without any medical records update.

- An international coding schemes will be used for coding diagnoses and procedures.

- There will be an archiving process for records more than two years old. The process will archive visit data, visit diagnoses, and procedure data. To keep the major visits, a posting process to the major procedures and diagnoses files will be performed frequently. Other non-major diagnoses and procedures will be purged from the online records, after being archived.

3.3 Assumptions Related to Hardware Configuration

- No computers will be installed in the contracted facilities.

3.4 Assumptions Related to Human Resources and Training

To understand the Medical Records System efficiently, a proper training for different user classes is essential.

- HIO top-level and branch management is to be trained on the basic aspects of the proposed Medical Records System. Management should acquainted with how to interpret its generated reports, and to use the reports in planning and decision making.

- Data entry staff members need to be trained on entering the different medical record entries into the computer.

- Branch computer operators are to be trained on producing and collecting the different kinds of reports that will be produced by the Medical Records System.

- Physicians need also to be trained on the basic concepts of the Medical Records System, especially the coding schemes of the diagnoses and procedures classification that will be used by the Medical Records System.

- Clinic statistical department clerks need to be trained on producing the aggregated reports.

4 FUNCTIONAL DESIGN

This section describes the functional design of the Medical Records System. The Medical Records System is made up of three major subsystems: the Clinic Medical Records Subsystem, the Hospital Medical Records Subsystem, and the Branch Medical Records Subsystem. Each of the three subsystems is comprised of a series of related functions. This document is a detailed description of only the Clinic (outpatient) Medical Records Subsystem and the Branch Medical Records Subsystem and their functions. Only a brief description of the Hospital (inpatient) Medical Records Subsystem is given.

1 Clinic Medical Records Subsystem

- **Visits Registration**
  This function includes:
  - GP visits registration,
  - specialist visits registration,
  - home visits registration,
  - lab activity registration,
  - radiology activity registration,
  - physiotherapy activity registration, and
  - produce daily forms.
- **Process Historical Medical Records**
  This function includes:
  - creating major procedures and diagnoses record,
  - recording allergy cases,
  - recording a summary clinical remarks,
  - posting the current diagnoses and procedures to medical history,
  - producing a detailed medical history, and
  - producing a summary medical history.

- **Process Prosthetic/Optical Devices**
  This function includes:

  . checking the beneficiary eligibility for a prosthetic or optical device, and

  . registering the dispensed devices.

- **Linking Visits to Episodes**

- **Produce Aggregated Reports**
  This function includes:

  . producing the GP Activity Report - Form 911,

  . producing the Specialist Activity Report - Form 933,

  . producing the Sick Leave Report - Form 912,

  . producing the Lab Activity Report - Form 934,

  . producing the Radiology Activity Report - Form 936,

  . producing the Physiotherapy Activity Report - Form 937, and

  . producing the monthly Prosthetic Devices Report.

2 Hospital Medical Records

The subsystem will be used to chronicle the medical records of a beneficiary during his stay in the hospital. It will record the procedures and operations performed on the beneficiary. The design of this subsystem will be included in the hospital application.

3 Branch Medical Records

The Branch Medical Records Subsystem will be used to compile data from both the Clinic and Hospital Medical Records Subsystems, and to produce detailed reports based on that data.

The Medical Records Module deals with any medical records or medical history for the beneficiary, either in the polyclinic (Clinic Medical Records Subsystem) or the hospitals (Hospital Medical Records Subsystem). It includes visits, diagnoses, procedures and operations that take place in HIO facilities. These records will help the branch (Branch Medical Records Subsystem) produce statistical medical records reports.

The following subsections outline the functional design for the outpatient and branch-level portion of the Medical Records System. Each subsection describes the objectives; input forms; and output forms of a particular function. Also included is information on the location of functions; the entities that are involved in each function; and the flow of data. To complete the picture of the Medical Records System, a very brief description of the hospital-level subsystem is also included (Section 4.2).

4.1 Clinic Medical Records Subsystem

This subsystem is used to record different activities in HIO polyclinics. When compiled and processed, the data will also be used by clinic management, as well as branch management. The clinic sections that will benefit from this subsystem are:

- GP examining rooms,
- the specialties except the dentistry,
- labs,
- radiology,
- physiotherapy,
- prosthesis centers, and
- optical centers.

By requesting a printout from the registration desk, a physician will have access to up-to-date records on a beneficiary's medical history, medical visits, and any procedures (such as operations, X-ray, lab tests, etc.) performed for the beneficiary. Inputting new medical records data will help eliminate the use of the medical booklet. The subsystem will produce the daily activity reports in most of the clinic departments, and reduce a great amount of the manual work for registering and aggregating the daily forms.

Other modules, such as the Cost Accounting and the Medical Quality Assurance Modules will look at clinic visits from another point of view to satisfy one of their input requirements. They will look at the visits as a group, set of visits, or a series of visits that map to a single patient diagnosis called an **episode**. The episode starts with a visit and ends when the case is completed. This subfunction is discussed in detail in Section 4.1.5, Linking Visits to Episodes.

4.1.1 Visits Registration

This function is used in registering and producing the visit information in the GP and specialist examining rooms. It is also used to record home visits. It will produce a report of

daily activities for each of the above actions. The following sections are a discussion of each of the major subfunctions of the Visits Registration Function.

4.1.1.1 Register Physician Visits

Logically, automation of the visit registration should start where the Beneficiary Registration Module leaves off; that is, at that point when the visit is recorded in the registration office. A Beneficiary Visit Form (Exhibit 4-1) will be printed in the registration office. It will have two blocks. The first block will contain the beneficiary ID number, the beneficiary's name, the visit date, the visit number, medical specialty required, and visit purpose[1].

At this time, the physician may wish to request a copy of a beneficiary's summary or detailed medical record. If so, a Medical Record Report (Exhibit 4-2) will also be printed in the computer room.

In the examining room, the physician will fill in the second data block of the Beneficiary Visit Form, specifying the diagnosis, treatment, procedures, and any other relevant data.

If the physician recommends any procedures as a result of the examination, the procedure data will be registered in the visit form A referral is written by the physician and handed to the beneficiary. This referral must include the visit number for retrieval purposes.

The visit outcome is registered in the visit form to identify the next step required for the beneficiary.[2] If the case requires a transfer to another location, a transfer form is completed and handed to the beneficiary.

After the examination is completed, the visit form is sent to the computer room where its data is entered in the system. The data is recorded in the following tables:

- visits,
- diagnoses, and
- procedures.

When all these data have been input into the system, the daily Report 123 can be printed. The 123 Report will be automated and generated by the system, increasing the efficiency and accuracy of data recording. The clinic statistical department will also save time in producing the aggregated reports.

---

[1] For further information on "visit purpose," see Appendix D, Supplementary Information.

[2] For further information of "visit outcome," see Appendix D, Supplementary Information.

Exhibit 4-1
BENEFICIARY VISIT FORM

Beneficiary Visit Form
Beneficiary ID: XXXXXXXXX Beneficiary Name: XXXXXXXXX XXXXXXXXX XXXXXXXXX Visit Number: XXXX Specialty: XXXXXXXXX Visit Date: XX/XX/XX
Diagnoses 1. _____ 2. _____ 3. _____
Procedures Requested 1. _____ 2. _____ 3. _____
Sick Leave Days: _____ **Visit Outcome:** _____ **Prescription No.:** _____
Physician Name: _____ **Physician No.:** _____

Exhibit 4-2
MEDICAL RECORD REPORT

Medical Record Report

Visit Date:	XX/XX/XX	Visit No.:	XXXX
Beneficiary ID:	XXXXXXXXX	Physician Name:	XXXXXXXX XXXXXXXX
Beneficiary Name:	XXXXXXXXXX XXXXXXXXX XXXXXXXXX		

Summary Medical History

Visit No.: XXXX	Visit Date: XX/XX/XX	Specialty: XXXXXXXXX
Diagnoses	Procedures Performed	Prescribed Drugs
XXXXXXXXX	XXXXXXXXX	XXXXXXXXX
XXXXXXXXX	XXXXXXXXX	XXXXXXXXX
XXXXXXXXX	XXXXXXXXX	XXXXXXXXX

****

Visit No.: XXXX	Visit Date: XX/XX/XX	Specialty: XXXXXXXXX
Diagnoses	Procedures Performed	Prescribed Drugs
XXXXXXXXX	XXXXXXXXX	XXXXXXXXX
XXXXXXXXX	XXXXXXXXX	XXXXXXXXX
XXXXXXXXX	XXXXXXXXX	XXXXXXXXX

****

Visit No.: XXXX	Visit Date: XX/XX/XX	Specialty: XXXXXXXXX
Diagnoses	Procedures Performed	Prescribed Drugs
XXXXXXXXX	XXXXXXXXX	XXXXXXXXX
XXXXXXXXX	XXXXXXXXX	XXXXXXXXX
XXXXXXXXX	XXXXXXXXX	XXXXXXXXX

****

Visit No.: XXXX	Visit Date: XX/XX/XX	Specialty: XXXXXXXXX
Diagnoses	Procedures Performed	Prescribed Drugs
XXXXXXXXX	XXXXXXXXX	XXXXXXXXX
XXXXXXXXX	XXXXXXXXX	XXXXXXXXX
XXXXXXXXX	XXXXXXXXX	XXXXXXXXX

****

Visit No.: XXXX	Visit Date: XX/XX/XX	Specialty: XXXXXXXXX
Diagnoses	Procedures Performed	Prescribed Drugs
XXXXXXXXX	XXXXXXXXX	XXXXXXXXX
XXXXXXXXX	XXXXXXXXX	XXXXXXXXX
XXXXXXXXX	XXXXXXXXX	XXXXXXXXX

4.1.1.2 Register Home Visits

The registration of home visits starts by registering the beneficiary request on Form 123b. This will remain a manual function. After performing the home visit, the physician submits the visit outcome data to the home visit registration office. These data are recorded manually on the 123b Form in order to complete the visit record.

At the end of the day, an operator in the computer room will enter the home visits data, to be included in the aggregated set of reports.

The home visit will be recorded in the visits file with a visit purpose indicating that it is a home visit.

4.1.1.3 Register Procedures

The Procedure Registration Function differs from the other visits registration functions. First of all, any beneficiary entering a facility for a procedure will go directly to the specialized center with the procedure referral form. In this case, the beneficiary will not stop by the registration office to have the visit recorded. The specialized center will register the beneficiary data and the procedure data manually on:

- Form 154 in the case of a lab test,
- Form 158 in the case of radiology, and
- Form 131 in the case of physiotherapy.

At the end of each day or at the end of each shift, a technician will use the terminal in the computer room to enter the activities as follows:

- The user will retrieve the beneficiary records that have been created while entering the physician visit. The retrieval will be done using the visit date and visit number registered when recording the procedure data in the physician visits.
- The user will enter the completion date; the procedure status code[3]; the service type code (in case of radiology); the serving facility and specialty code; the requesting facility and specialty code; and the reference number with which the radiology technician can retrieve the X-ray results from the manual register and the shelves.

[3] For more detail on "procedure status code," see Appendix D, Supplementary Information.

4.1.1.4 Produce Daily Reports

This function is used to generate the following set of daily reports:

- o the daily GP Activity Report - HIO Form 123 (see Exhibit 4-3), and
- o the daily Specialists Activity Report - HIO Form 123.

4.1.2 Process Historical Medical Records

The purpose of this function is to maintain the beneficiary medical history. The history will be created with the beneficiary's first visit to the assigned polyclinic, and will be updated for subsequent visits. This function is also responsible for recording information on any allergies, or other clinical remarks. Further, this function will be used in producing the Summary Medical Records Report mentioned in Section 4.1.1.1, Register Physician Visits.

A detailed report can also be generated upon request to facilitate reviewing the patient medical history (Exhibit 4-2, above).

We will discuss in details the subfunctions of the Process Historical Medical Records Function in the following six sections:

4.1.2.1 Record Major Procedures and Diagnoses

The steps required for recording either major procedures or diagnoses are almost identical. When the beneficiary arrives at the polyclinic for the first time, he will be asked to complete a medical history questionnaire. The questionnaire will gather information on the beneficiary's name, HIO ID number, any operations he has had, and any major diseases he may have suffered. Another section of the questionnaire asks for information on any allergies a beneficiary may have (see Exhibit 4-4, Beneficiary Medical History Questionnaire).

This questionnaire might also be filled during the initial medical checkup performed on new hires.

The system will maintain records of physician visits for two years. Records of major diagnoses or procedures will be maintained through the lifetime of the beneficiary.

Information from the questionnaire will be entered. It will be recorded in the medical records files to create a historical medical record about the beneficiary. These files will be updated after each visit to the clinic.

exhibit 4-3

Exhibit 4-4
BENEFICIARY MEDICAL HISTORY QUESTIONNAIRE

BENEFICIARY MEDICAL HISTORY

Beneficiary ID No.: _____

Beneficiary Name: _____

Major Operations

Operation	Operation Date	Hospital
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Major Diseases

Diagnosis or Diseases	Diagnosis Date
_____	_____
_____	_____
_____	_____
_____	_____

Allergies

_____
_____
_____
_____

Remarks

_____
_____
_____
_____

As in any computer system, there should be a process for archiving system files, or a way of purging the beneficiary medical records without losing the beneficiary past medical history. For this reason a posting function has to take place to transfer the major records from the visits file to the major procedures and diagnoses files (for more detail, see Section 4.1.2.4, Posting Current Procedures).

4.1.2.2 Record Allergy Cases

A record has to be created, using the drug generic code, for beneficiaries who are allergic to chemicals or any other substance. This will help a physician during an examination and prescribing drugs or treatment.

4.1.2.3 Record Medical Remarks

This function is used to give the physician an opportunity to include any clinical comments or remarks not covered by the procedure, diagnoses, or allergy registration in a beneficiary's medical records.

4.1.2.4 Posting Current Procedures

Since the physician visit data and the procedures data will not be maintained for a beneficiary's lifetime, and at some point will have to be archived, a posting process has to take place. The posting process has two purposes:

- To update the major procedures and diagnoses files, or to record any operation that have been done on the beneficiary. This function will also be used to record any other important record that might be necessarily maintained in the beneficiary medical history.

- To periodically purge the visits, diagnoses, and procedures file without losing any important information that may be needed in the beneficiary medical records. Online medical records will be kept for a period of two years.

4.1.2.5 Produce Medical History Reports

This function will produce different kinds of reports based on a beneficiary's historical medical records, either in full or summarized format. It will include the beneficiary records in the major operations, procedures, and diagnoses files; allergy cases; and any other clinical comments.

In cases where a beneficiary is transferred to a consultant or a medical committee, these reports will be especially valuable. Not all consultants or medical committees will have access to an HIO terminal, and the report will be a hard copy of the beneficiary's medical history. These reports will also be helpful in hospital transfer and temporary clinic assignments.

4.1.3 Process Prosthetic/Optical Devices

Prosthetics and optics are distributed using the same system. When a beneficiary is transferred from his assigned clinic to a prosthetics or optical center to order and receive a device, a check must be done to discern if the beneficiary is eligible. All data concerning the dispensed device is kept in a separate file. This file will include the beneficiary ID, the date of dispensation, the referring facility, the servicing provider, and details on the dispensed prosthetic or optical device. This data, together with the file containing information on the expected lifetime of the prosthetic or optic, will help in the eligibility check mentioned above.

Dispensed prosthetics will be manually registered every day in the Dispensed Prosthetics Register (Form 109, which includes the beneficiary data, prosthetic data, and the supplier data). Dispensed optics will be manually registered every day in the Dispensed Optics Register (also Form 109).

4.1.4 Produce Aggregated Reports

This function will be used to produce the aggregated reports. These reports will be generated by the computer room in the clinic, and will cover activity in the following departments:

- GP activity,
- specialists activity,
- lab activity,
- radiology activity,
- physiotherapy, and
- dispensed prosthetics devices.

The aggregated reports include:

- **The GP Activity Report - Form 911**, which is submitted to the medical zone every ten days. This report is produced using visits, procedure, and visit diagnoses files (see Exhibit 4-5).

Exhibit 4-5

- **The Beneficiary Sick Leave Report - Form 912**, which is submitted to the medical zone every ten days with form 911 (see Exhibit 4-6).

- **The Specialist Activity Report - Form 933**, which is submitted to the medical zone every month (see Exhibit 4-7).

- **The Laboratory Activity Report - Form 934**, which is produced by the lab and submitted to the clinic statistical department every ten days. This report is produced using the procedure file (see Exhibit 4-8).

- **The Radiology Activity Report - Form 936**, which is produced by the radiology technician and submitted to the clinic statistical department every ten days. Note that the input for this report is the daily, manual Form 158, which is recorded in the system in the procedure file (see Exhibit 4-9).

- **The Physiotherapy Activity Report - Form 937**, which is produced by a physiotherapy technician and submitted to the clinic statistical department every ten days. Note that the input for this form is the daily, manual Form 131, which is recorded in the procedure file in the system (see Exhibit 4-10).

- **The Dispensed Prosthetic Device Report**, which is produced by the prosthetic center and is sent to the medical zone monthly. This report is produced using the dispensed prosthetics file in the medical records system (see Exhibit 4-11).

4.1.5 Linking Visits to Episodes

The Medical Records Module deals with a beneficiary in terms of individual visits. Other systems, such as the Cost Accounting and Medical Quality Assurance Modules, however, will use this data in terms of a certain diagnosis or disease. A diagnosis or disease may involve a single visit or a number of visits. Therefore, in order to make medical records data useful for other systems, a beneficiary's visits for a single disease or diagnosis must be linked, or grouped, to an **episode**.

Looking at a visit or a series of visits related to a specific medical condition will give good analytical information. For example, we may need to know how long it takes, on the average, to cure a specific disease, how much it costs, and what procedures or drugs seem to work best. Medical records grouped accurately in episodes will be basis for compiling this information.

This function will create the episodes or, in other words, compile a set of related visits. To qualify as an episode, the visits must have the same diagnosis and occur within a specific interval of time. Each episode will be recorded in the episode file. An episode file will include the episode starting date, completed date, number of visits, and the diagnosis.

Exhbit 4-6

exhibit 4-7

Exhibit 4-8
LABORATORY ACTIVITY REPORT

Health Insurance Organization **Form No. 934**

Branch _____

Zone _____

Clinic _____

Laboratory Activity

From / / 19 - to / / 19

No.	Date	Urine	Stool	Blood	Pathological Test	Bacteriological Test	Other Tests	Remarks
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
Total								

exhibit 4-9

Exhibit 4-10
PHYSIOTHERAPY ACTIVITY REPORT

Health Insurance Organization **Form No. 937**

Branch _____

Zone _____

Clinic _____

Physiotherapy Activity

From / / 19 - to / / 19

No.	Date	Ultra Violet Rays	Infra Red Rays	Short Wave	Ultra Sonic Rays	Long Wave	Galvanic Faradaic Current	Total
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
Total								

Exhibit 4-11
DISPENSED PROSTHETIC DEVICE REPORT

Health Insurance Organization
Branch _____

Dispensed Prosthetic Devices
Month of 19

No.	Prosthetic Devices	No. of Devices			Amount	
		Law 32	Law 79	Total	L.E.	P.T.

4.2 Hospital Medical Records Subsystem

The Hospital Medical Records Subsystem will function very much the same as the Clinic Medical Records Subsystem, though it will provide other features specifically needed by hospitals. It will register the medical records of a beneficiary during his stay in the hospital. It will record any procedures or operations performed on the beneficiary. Other relevant information, such as the date of admission and discharging diagnosis, will also be recorded.

This brief description of the Hospital Medical Records Subsystem is provided in this document to help complete the picture of the Medical Records Module, but this document describes the outpatient medical records, not the inpatient.

4.3 Branch Medical Records Subsystem

This function allows the branch to generate different kinds of statistical reports on the clinic and hospital levels.

At the end of each month, all HIO polyclinics related to a certain branch will send aggregated data to the branch. Using these data, the branch will produce statistical reports on all branch clinics. These reports will categorize clinic activities by beneficiary type, governorate, specialty, and clinic.

Clinic reports include:

- laboratory activity,
- radiology activity,
- GP activity,
- specialist activity,
- prosthetics statistics,
- optics statistics, and
- beneficiary transfer statistics.

The same procedure is repeated for the HIO hospitals related to a certain branch. The hospital will send its aggregated reports covering all its activities to the branch at the end of each month. With this data, the branch will produce statistical and consolidated reports on all branch hospitals.

The hospital reports include:

- hospital activity,
- reception office activity,
- mortality statistics, and
- operation room activity.

FD-1
MEDICAL RECORDS SYSTEM

The medical records system covers three major areas:

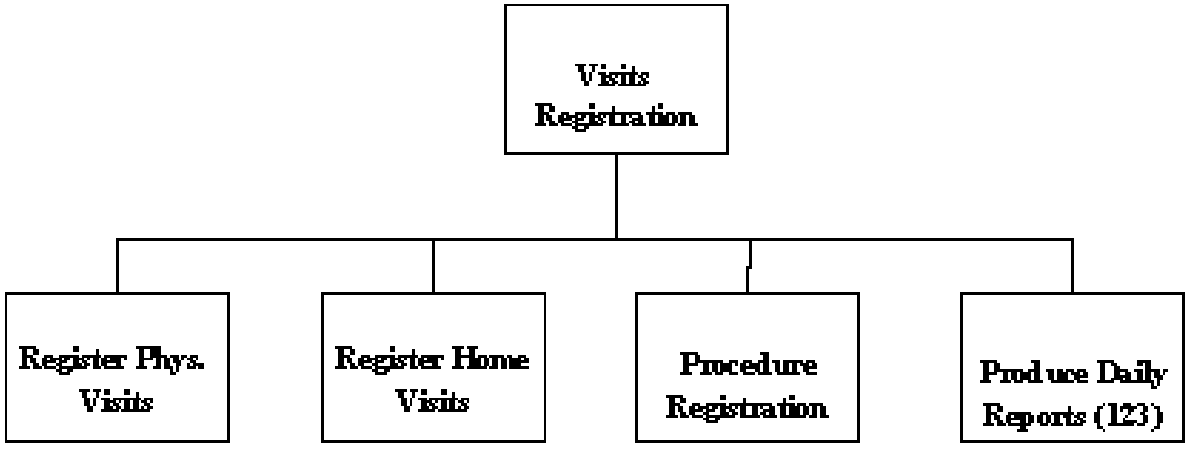
- The clinic medical records function will cover all the activities performed by the GP, specialist, and procedures visits.
- The hospital medical records function will cover the registration of the hospital visits, procedures done, and the discharging diagnosis for every inpatient.
- The branch medical records will cover the production of the statistical and analytical reports for both clinics and hospitals.

FD-2
CLINIC MEDICAL RECORDS

In the clinic, the medical records function will cover the following:

- Maintaining the historical medical records of the beneficiary.
- Recording and reporting any dispensed prosthetics in any of the specialized centers.
- Registering and reporting activities performed by the GP, specialist, and procedures of daily visits.
- Producing the aggregated monthly reports in the clinic statistical department.
- Performing the visit linkage process to create the episodes records for every set of visits.

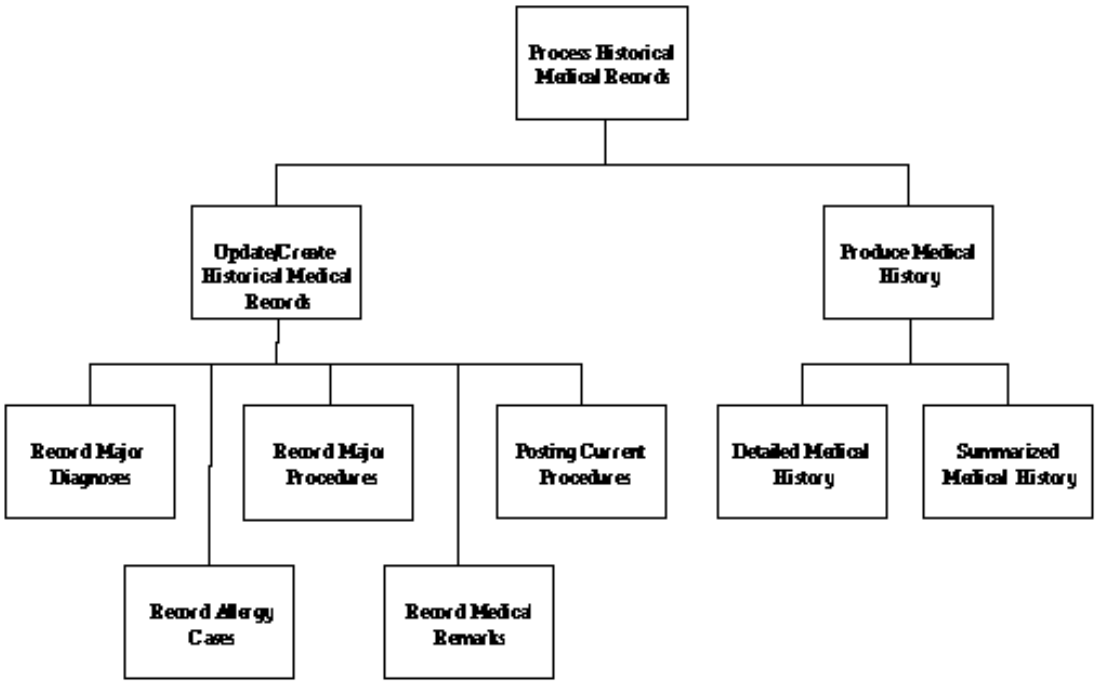
FD-3
VISITS REGISTRATION



The Visits Registration Subfunction includes:

- Registering the daily visits to the physicians (GPs and the specialists) in 123 Form.
- Registering the daily home visits (the visit request and outcome) in 123b Form.
- Registering the lab and radiology daily procedures in batch.
- Producing the 123 Forms for the GP, specialist and home visits.

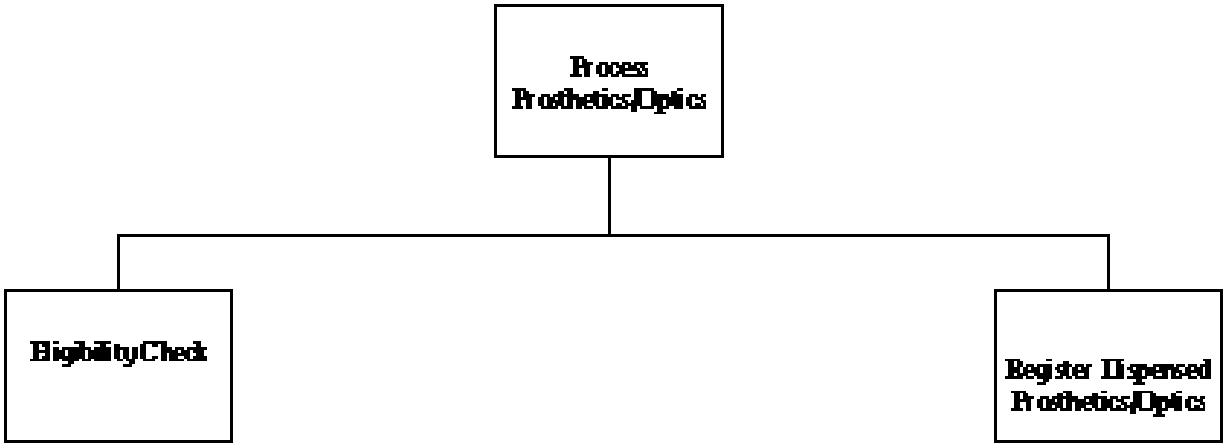
FD-4
MEDICAL RECORDS PROCESSING



The medical records process will be used for maintaining patient records through:

- Recording the major diagnoses and procedures that have been done to the beneficiary (in the case of first visit).
- Posting the procedures and operations that have been done to the beneficiaries during clinic or hospital visits.
- Recording the allergy cases and any other clinical remarks to help the physicians.
- Producing a detailed medical history and a summary upon the physician's request.

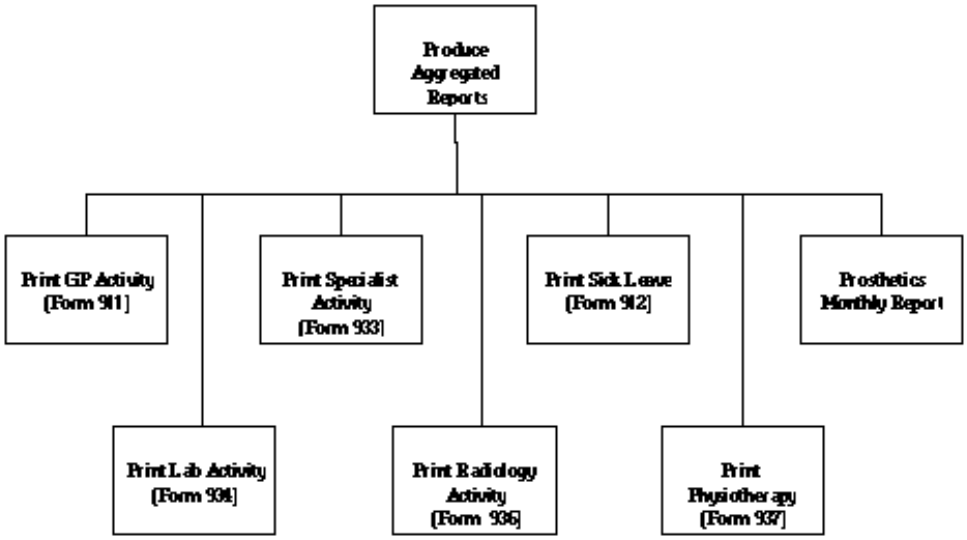
FD-5
PROSTHESIS/OPTICS PROCESSING



In any prosthesis/optics center:

- o A check is done to ensure the beneficiary's eligibility to receive optics or a prosthetic.
- o Dispensed prosthetics/optics are registered as in the 109 form.

FD-6
PRODUCTION OF AGGREGATED REPORTS



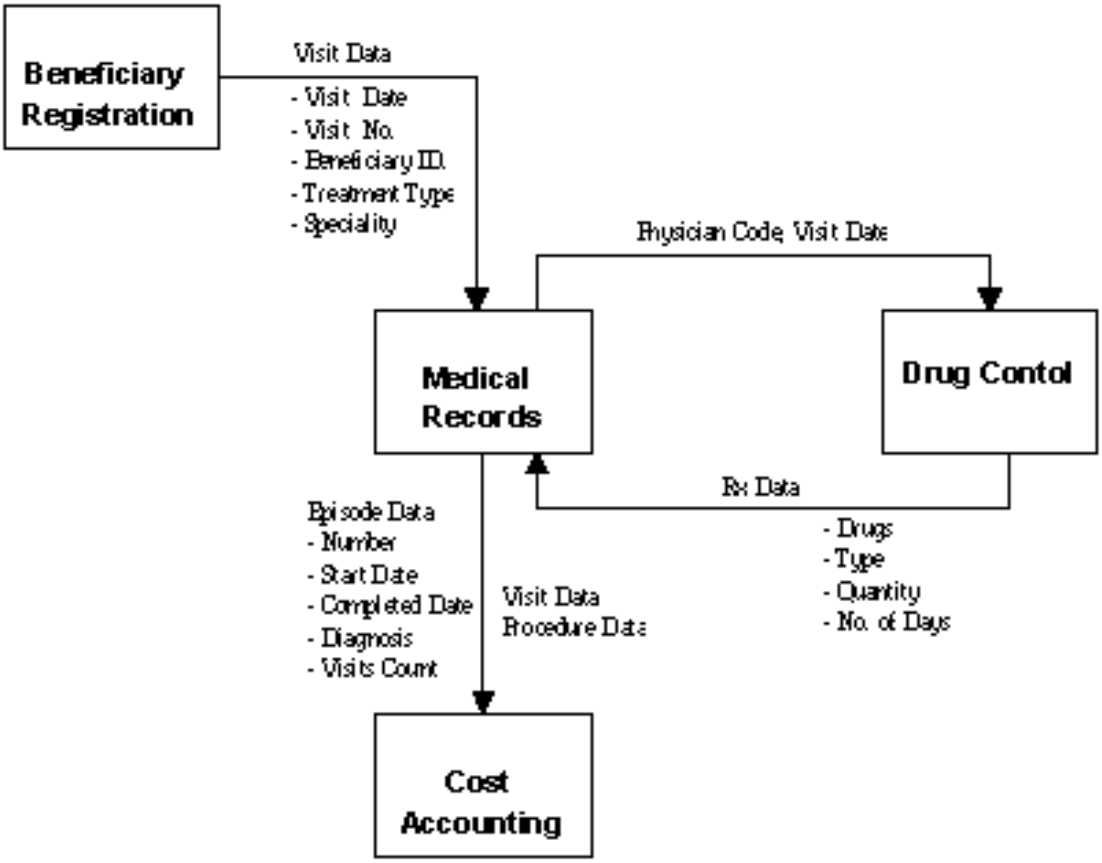
In a clinic statistical department, the following forms are produced at the end of each month:

- The General Practioner Activity Reports (Form 911) are produced using the 123 Forms.
- The Specialists Activity Reports (Form 933) are produced using the 123 Forms.
- The Sick Leave Reports (Form 912) are produced using the 123 Forms.
- The lab and radiology activities will be entered at the end of each day, the aggregated forms will be printed monthly.

FD-7
BRANCH MEDICAL RECORDS

The branch medical records function is mainly for statistical and analytical reports production on both the clinic and hospital levels.

BD-1
INTERFACES WITH OTHER SYSTEMS



DRAFT

SUPPLEMENTARY INFORMATION

Visit Purpose

The visit purpose is used to identify the different types of visits, or reasons beneficiaries visit a facility. Examples of visit purpose include "new visit," follow-up," "medical treatment," and so forth. This information is entered in the reception office and will be key in categorizing the aggregated and statistical reports. Exhibit D-1 illustrates a sample Visit Purpose List.

Exhibit E-1
VISIT PURPOSE LIST

VISIT PURPOSE	GP	SPECIALIST
New Visit	✓	✓
Follow-Up	✓	✓
Home Visit	✓	✓
Return from a Hospital	✓	✓
Return from a Consultant		✓
Specialist Treatment Repetition	✓	
Medical Treatment	✓	

According to HIO policy, general practitioners and specialists have different authorizations and responsibilities. For this reason, the options available in the GP column of the Visit Purpose List differ somewhat from those available in the specialist column.

Visit Outcome

The visit outcome means the result of the visit or the decision taken by the physician for further treatment or procedures. Examples of visit outcome include "transfer to other location," "follow-up visit," "transfer to a prosthesis center," and so forth. The information is collected on the Beneficiary Visit Form and will be completed at the end of the patient's visit. It will define the next step to be taken. Exhibit D-2 illustrates a sample Visit Outcome List.

Exhibit E-2
VISIT OUTCOME LIST

VISIT OUTCOME	GP	SPECIALIST
Follow-Up	✓	✓
Case Completed	✓	✓
Transfer to a Specialist	✓	
Transfer to a Consultant		✓
Transfer to a Hospital		✓
Transfer to a Medical Committee		✓
Transfer to a Prosthesis Center		✓
Procedure Needed	✓	✓
GP Treatment Repetition		✓

As pointed out above, HIO policy assigns different authorizations and responsibilities to general practitioners and specialists. For this reason, the options available in the GP column of the Visit Outcome List differ somewhat from the options available in the specialist column.

International Classification of Diseases (ICD) Code

The ICD code is an international coding system published by the World Health Organization (WHO). It is recommended for use in all clinical settings for reporting diagnoses and diseases. ICD is designed for the classification of morbidity and mortality information in statistics; for the indexing of hospital records by diseases; and for the storage and retrieval of data.

The ICD coding scheme depends on transforming verbal descriptions of diseases, injuries, conditions, and procedures into numerical designations. The coding must be performed correctly and consistently to produce meaningful statistics and records. These statistics and records, if accurate, will greatly aid in HIO planning.

A subset of the ICD code is currently used by the North West Delta Branch. In its manual system, the Gamal Abdel Nasser Hospital in Alexandria uses an old version of the ICD for coding the discharging diagnoses.

Procedures Classification Systems

The Physicians' Current Procedural Terminology (CPT) is a procedure classification system listing and coding procedures and services performed by physicians. The system is produced by the American Medical Association. It simplifies the system physicians use to report and record rendered services. In surgery, it may be an operation; in medicine, a diagnostic or therapeutic procedure; in radiology, a radiograph.

WHO publishes another procedures classification system, the "Classification of Procedures in Medicine" (CPM). It contains a classification of therapy, surgery, radiology, laboratory, and other diagnostic procedures. The classification is structured on anatomy rather than medical specialty.

It is not yet decided whether CPT or CPM will be used in the Medical History System.

Note that these codes will be transparent to the physician. Physicians will not deal directly with any code. The coding will be done automatically by the system as follows:

- The physician will write the diagnosis or the procedures on the Beneficiary Visit Form.
- The computer room operator will select the diagnosis or the procedure from a lookup table.
- The system will internally map this selection to the corresponding code.

Procedure Status Code

This code is used to describe the status of a procedure. There are three possible statuses:

- completed successfully,
- failed, or
- incomplete.

SITE VISIT OF MARCH 16 & 17, 1994

Place: HIO NWDB Facilities & WHO

Subject: 1) Manual work flow for medical records registration of the beneficiaries.
2) ICD & CPT application in the polyclinics.
3) Medical records handling in hospitals.

Attendee	Location
Mrs. Bahya Hassen	NWDB Computer Center
Dr. Salwa El Seawy	NWDB Computer Center
Dr. Hazem Helmy	NWDB Medical Services
Dr. Samy Shehab	NWDB Medical Services
Dr. Medhat Soubky	Mohamed Korayem School
Dr. Mervat Mahmoud	Mohamed Korayem School
Dr. Hoda Salah	Mohamed Korayem School
Dr. Mourad Aly	Mohamed Korayem School
Dr. Aly Kassem	Mohamed Korayem School
Dr. Mohamed Nabil	Loran Polyclinic
Dr. Essmat Hamouda	World Health Organization (WHO)
Mrs. Azza Badr	World Health Organization (WHO)

SITE VISIT OF MARCH 21, 1994

Place: East Delta Branch

Subject: 1) Manual work flow for medical records in the medical services department and contracted facilities.
2) ICD & CPT application in the polyclinics.
3) Medical committee responsibilities in the branch.
4) Scheduling physicians' working hours.
5) Periodic reports produced by the branch and the statistical department.

Attendee	Location
Dr. Ahmed Medhat	East Delta Branch
Dr. Abd El Tawab	Medical Services Department
Mr. Hassen Salamony	Statistics Department

SITE VISIT OF MARCH 21, 1994

Place: HIO Masr El Gedida Polyclinic

Subject:
1) Manual work flow for medical records and beneficiary registration.
2) ICD & CPT application in the polyclinics.
3) Medical records handling in the polyclinics.
4) Maintenance of test results.

Attendee	Location
Dr. M. Abd El Gawad	Masr El Gedida Polyclinic
Dr. Kamilia Khatab	Masr El Gedida Polyclinic
Mr. Emad Hafez	Masr El Gedida Polyclinic

SITE VISIT OF APRIL 4, 1994

Place: El Nile Clinic

Subject:
1) Manual work flow for medical records and contracted facilities.
2) Medical committee responsibilities in the branch.
3) Scheduling physicians' working hours.
4) Maintenance of test results.

Attendee	Location
Dr. Bahaa Mohamed	El Nile Clinic
Mrs. Sanaa Abd El Reheem	El Nile Clinic

SITE VISIT OF APRIL 8, 1994

Place: Canal Branch

Subject: 1) Manual work flow for medical records in the medical services department, polyclinics and contracted facilities.
2) Medical committee responsibilities in the branch.
3) Scheduling physicians' working hours.
4) Periodical reports produced by the branch and the statistical department.

Attendee	Location
Dr. Mohamed Salah	Canal Branch
Dr. Aly Mahran	Medical Services
Dr. Shoukry Kossman	Port Said Polyclinic
Dr. Mohamed El Arabi	El Mabara Polyclinic
Dr. Samir Ghweba	Third Medical Zone
Dr. Abd El Maksoud	Third Medical Zone

SITE VISIT OF APRIL 11 & 12, 1994

Place: NWDB Facilities

Subject: 1) Manual work flow for optics and prothesis centers.
2) Medical data (provided by hospital after discharging the beneficiary).
3) ICD & CPT usage in the medical records.

Attendee	Location
Mr. Shoukry Ibrahim	El Pharaana Clinic
Dr. Mohamed Fathy	El Pharaana Clinic
Mrs. Soaad	El Pharaana Clinic
Mrs. Maha	El Pharaana Clinic
Mrs. Abeer	El Pharaana Clinic
Dr. Omar Moukhtar	Moharem Bek Clinic
Dr. Galaa Hawary	Gamal Abd El Nasser Hospital
Dr. Nadia Ahmed	Mahfouz Center

SITE VISIT OF APRIL 13, 1994

Place: El Haram Polyclinic

Subject: 1) Manual work flow for medical records in the polyclinic and contracted facilities.
2) Periodical reports produced by the clinic's statistical department.

Attendee	Location
Dr. Abd El Fatah	El Haram Clinic
Mrs. Fardouss	El Haram Clinic
Mrs. Hoda Kamal	El Haram Clinic
Mrs. Labeeb Tadrous	El Haram Clinic

SITE VISIT OF APRIL 18, 1994

Place: Middle Delta Branch
Subject: 1) Manual work flow for medical records in the polyclinic and the medical services department.
2) Periodical reports produced by the clinic's statistical department.

Attendee	Location
Dr. Mohamed Meged	Medical Service
Dr. Mohamed Ghoneim	Medical Service
Dr. Mohamed Maher	Medical Service
Dr. Mohamed Ayad	MD Branch
Dr. Refaay El Keliny	Kotour Clinic